

CLAIMS

What is claimed is:

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1. An automated inspection system for
5 automatically inspecting a surface treatment of a game ball,
said automated inspection system comprising:
an imaging system arranged to detect the
presence of a substance applied to the surface of a game ball
and to generate a detection signal representative of said
substance; and
10 an analyzer coupled to said imaging system to
receive said detection signal from said imaging system and
analyze said detection signal to determine conformance of the
surface treatment to production standards.

15 2. An automated inspection system as in claim 1,
wherein:
said analyzer generates an analysis signal
indicative of conformance of the surface treatment to
predetermined standards;

20 said automated inspection system further
comprises an inspection responsive device coupled to said
analyzer to receive said analysis signal; and
said inspection responsive device utilizes
said analysis signal to perform an act on the inspected game
ball associated with said analysis signal.

25 3. An automated inspection system as in claim 2,
wherein:
said analysis signal comprises a reject signal
generated by said analyzer upon a determination of
30 nonconformance of said surface treatment with production
standards.

4. An automated inspection system as in claim 3,

wherein:

5 said automated inspection system is provided in a game ball processing station downstream of a processing apparatus in said processing station; and

5 said inspection responsive device comprises a reject device positioned downstream of said detector to remove defective balls from said processing station.

10 5. An automated inspection system as in claim 1, wherein said detector further comprising an environmental modification device configured such that the game ball surface can be properly detected by said imaging system.

15 6. An automated inspection system as in claim 5, wherein:

15 a coating containing an agent that is illuminated under non-ambient lighting conditions is applied to the game ball surface; and

20 said environmental modification device comprises lighting having a wavelength selected to illuminate the agent in the coating on the game ball surface.

7. An automated inspection system as in claim 5, wherein:

25 ink is applied to the golf ball surface in the form of an indicium; and

25 said environmental modification device comprises lighting arranged to cause even, diffuse illumination of the indicium for detection by said imaging system.

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8. An automated inspection system as in claim 1, wherein:

5 said imaging system comprises a detector; and
said detection signal comprises a still image
of the golf ball being detected.

10 9. An automated inspection system as in claim 8,
wherein said detector is a shuttered camera.

15 10. An automated inspection system as in claim 8,
wherein said analyzer comprises a machine vision engine
capable of analyzing images of the golf ball being inspected.

20 11. An automated inspection system as in claim 10,
wherein said analyzer further includes a monitor for
displaying information generated by said machine vision
engine on the golf ball being inspected.

25 12. An automated inspection system for
automatically inspecting a surface treatment of a golf ball,
said automated inspection system comprising:

30 an imaging system arranged to generate a still
image of a golf ball; and
an analyzer coupled to said imaging system to
receive and analyze said still image to determine conformance
of the surface treatment to production standards.

35 13. An automated inspection system as in claim 12,
wherein said golf ball is maintained in a still position
during generation of said still image.

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